## Use Attainability Analysis

for

WBID 1326 Little Drywood Creek

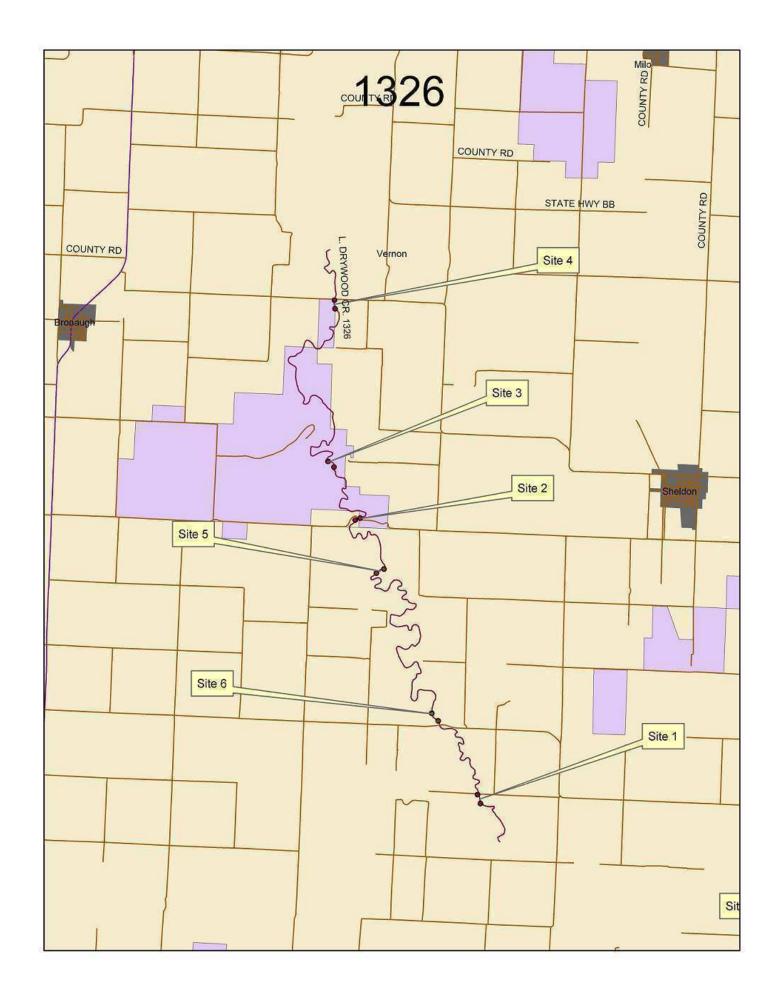
Submitted by SES, Inc.

To Missouri Department of Natural Resources Water Protection Program

Date Received: October 26, 2007

### Data Sheet A - Water Body Identification

I. Water Body Information (For water body	y being surveyed)
Water Body Name (from USGS 7.5' quad):	L. Drywood Creek
Missouri Water Body Identification (WBID) Number	r: 1326
8 digit HUC code: 10290104	County: Vernon, Barton
Upstream Legal Description (from Table H): T33	N R31W 28
Downstream Legal Description (from Table H):	T34N R32W 12
Number of sites evaluated: 6	
List all site numbers, listed consequently upstream	n to downstream:
1, 6, 5, 2, 3, 4	
Site Locations Map(s): Attach a map of the entire Mark any other items that may be of interest.  II. Facility Information (list all permitted discharge Facility Name(s) and Permit Number(s):	
Lamar Sanitary and Demolition	
MO0112046	
III. UAA Surveyor (please print legibly)	
Name of Surveyor: Aaron Ball	Telephone Number: 913-307-0046
Organization/Employer: SES, Inc	
Please verify that you have completed all section complete.	ons, checked all applicable boxes, and that the form is
Signed: Aaron Ball	Date: 10/23/2007



WBID#	1326
Site #	1

-									
Date & Time: 9	9/28/07	10:00am		Site Location	on Descrip	tion (e.g. road	crossing):		
Personnel: L	arissa	Brown, Aaron Ball		60 RD cros	sing				
Current Weathe	er Cond	litions: clear		Facility Nar	ne:	Lamar Sanita	ry and Demolition		
Weather conditi	ions for	the past 10 days:	4 in rain	Permit Number: MO0112046					
Drought condition	ons?: N	lo drought ☑ ; Pha	se I □ ; Phase	II □ ; Phas	e III □ ; P	hase IV □ ; Ur	nknown 🗆		
Site Location:									
Location Coordi	inates (	(Universal Transver	se Mercator Pr	rojection, In	Meters				
Site 01 E	Easting	(UTM X):	Northing (UTN	И Y):		Horizontal Accuracy: Meters			
O	38065	3	4160936						
Site 11 E	Easting	(UTM X):	Northing (UTM Y):			Horizontal Accuracy: Meters			
0	38057	8	4161154						
			•						
Photos:									
			Photo ID#:	Photo F	Purnose	Photo ID#:	Photo Purpose		
		•	82	upstream	игросс	T Hoto IBII.	Thoto Fulposo		
01	downstream 82		02	apou oum					
Photo ID#	Photo Purpose		Photo ID#	Photo F	Purpose	Photo ID#	Photo Purpose		
		·					·		
Photo ID#	Р	hoto Purpose	Photo ID#	Photo F	Purpose	Photo ID#	Photo Purpose		
Uses Observed	d:								
☐ Swimming		☐ Skin diving	☐ SCUBA di	iving	☐ Tubin	g	☐ Water Skiing		
☐ Wind surfing	g	☐ Kayaking	□ Boating		□ Wadir	ng	☐ Rafting		
☐ Hunting		☐ Trapping	☐ Fishing		☑ None	of the above	☐ Other:		
Describe:	<u>l</u>	<u></u>	<u>  —g</u>				[		

WBID#	1326
Site #	1

#### **Data Sheet B- Site Characterization (Continued)**

Surrounding Condition	ons:										
☐ City/County parks	□ playgrounds	☐ MDC conser	vation lands	□ Urban areas	☐ Rural Residential						
☐ Campgrounds	☐ State parks	□ National Fore	ests	□ Nature trails	☐ Stairs/walkways						
☐ Boating accesses	☑ Fence	☐ No tresspass	sign	☐ Steep Slopes	☐ Other:						
Comments:											
Evidence of Human l											
☐ Roads	☐ Foot path/prints	☐ Dock/platform		□ Camping Sites							
☐ RV/ATV Tracks	☐ Fire pit/ring	☐ NPDES Disch	narge	☐ Fishing Tackle	☐ Livestock watering						
comments/other:	none										
Substrate:											
% Cobble	% Grave 30	% Sand	10% Silt	60% Mud/Clay	% Bedrock						
Aquatic Vegatation:											
	None										
	Water Characteristics:										
Odor:	□ Sewage	□ Musky	☐ Chem		None ☐ Other:						
Color:	☐ Clear	☑ Green	☐ Gray		Milky ☐ Other:						
Bottom Deposit: Surface Deposit:	☐ Sludge ☑ Oil	☐ Solids ☐ Scum	☐ Fine s		I None ☐ Other: I None ☐ Other:						

WBID#	_1326_	
Site #	1	

## **Data Sheet B - Site Characterization (continued)**

Channel Feature	Distance from access location (m)	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)
	access location (m)				
			ı		
mments: (Please r	ecord any additional comments	s here.)			
ne					
ie					
ease verify that y mplete.	ou have completed all s	sections, check	red all applicabl	e boxes, and that the	e form is
veyor's Signature:	Aaron Ball		_Date of Survey:	9/28/2007	
Organization:	SES. Inc.		Position:	Field Team Leader	

																		Disso	lved Ox	ygen		
	Waterbo	ody ID:	1326		-	Site #:	1									Date:	9/28/07			Time:	10:00	
	Estimate	ed Chann	nel Incisi	on:	3	(m) (hei	ght betw	een low	bank wie	dth and w	vater)					Dute.	2120101		DO Me		10.00	
						•	_									Di	ssolved			rking	(mg/L)	
									-	Estimate								_				
		UTM X		0380653			UTM Y:		416093			+/-		(meters)		Di	ssolved	Oxygen:			(% sat)	
	11	UIMX	<u> </u>	03805/8	8		UIM Y:		4161134	4	•	+/-		(meters)			Smaaifi	o Condi			(uC/am)	
	Average	Stream	Width:		9			(meters)	L	ength of	Survey S	Segment:		180	(meters)		Specifi	e Cona.			(μδ/СП)	
	(To dete	rmne Le	ngth of I	Reach)					(2	20x avera	ge strear	n width)				Wa	ter Temp	erature:			(°C)	
	Fiel	d Staff:	Larissa	Brown A	Aaron Ba	111																
	1101	a summ	Zariosa	510 ((1), 1	1011 20	•••								•								
										Trai	nsect C	ross-Sec	tion									
	0	1	0	2	C	)3	0	)4	(	)5	0	6	0	7	0	8	0	9	1	0	11	1
Station	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)
Left Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0.6	0.1	0.7	0.5	0.7	0.4	0.7	0.2	1	0.3	0.9	0.5	0.5	0.1	0.7	0.3	0.7	0.3	1	0.25	0.4	0.3
2	1.2	0.2	1.4	0.65	1.4	0.5	1.4	0.5	2	0.5	1.8	0.4	1	0.15	1.4	0.4	1.4	0.6	2	0.45	0.8	0.4
3	1.8	0.2	2.1	0.65	2.1	0.7	2.1	0.3	3	0.5	2.7	0.05	1.5	0.2	2.1	0.4	2.1	0.8	3	0.75	1.2	0.6
4	2.4	0.2	2.8	0.65	2.8	0.75	2.8	0.3	4	0.5	3.6	0.1	2	0.25	2.8	0.4	2.8	0.8	4	0.9	1.6	0.75
5	3	0.2	3.5	0.65	3.5	0.7	3.5	0.5	5	0.5	4.5	0	2.5	0.3	3.5	0.35	3.5	0.75	5	1	2	0.65
6	3.6	0.15	4.2	0.7	4.2	0.7	4.2	0.45	6	0.5	5.4	0	3	0.4	4.2	0.25	4.2	0.8	6	1	2.4	0.5
7	4.2	0.2	4.9	0.8	4.9	0.6	4.9	0.4	7	0.75	6.3	0.25	3.5	0.4	4.9	0.2	4.9	0.8	7	0.9	2.8	0.4
8	4.8	0.2	5.6	0.55	5.6	0.4	5.6	0.3	8	0.6	7.2	0.4	4	0.3	5.6	0.15	5.6	0.7	8	0.7	3.2	0.2
9	5.4	0.2	6.3	0.45	6.3	0.3	6.3	0.2	9	0.45	8.1	0.35	4.5	0.2	6.3	0.1	6.3	0.65	9	0.6	3.6	0.15
Right Bank	6	0	7	0	7	0	7	0	10	0	9	0	5	0	7	0	7	0	10	0	4	0
Feature Type		,										,		,				,		,		
riffle, run, or pool	po	ool	pc	ool	po	ool	pc	ool	po	ool	pc	ool	po	100	po	Ol	po	01	po	ol	po	ol

Notes: Transects will be measured beginning on left descending bank (0 depth) and finishing on right descending bank (0 depth). This width is the wetted width

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

l MAXIMUM

0.4 MEDIAN

Signed: Aaron Ball Date: 9/28/07
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				<u> </u>				
Date & Time:	9/28/07	12:36		Site Location Description (e.g. road crossing):				
Personnel:	Larissa	Brown, Aaron Ball		NW 100 RD crossing				
Current Weat	her Con	ditions: clear		Facility Na	acility Name: Lamar Sanitary and Demolitic			
Weather cond	litions fo	r the past 10 days:	4 in rain	Permit Nun	nber:	MO0112046		
Drought cond	itions?: I	No drought ☑ ; Pha	ase I □ ; Phase	ı II □ ; Phas	e III □ ; P	hase IV □ ; Ur	nknown 🗆	
Site Location								
Location Cool	rdinates	(Universal Transve	rse Mercator P	rojection, In	Meters	1		
Site 01	Easting	ı (UTM X):	Northing (UTI	M Y):		Horizontal Accuracy: Meters		
	037766	64	4168015					
Site 11	Easting	ı (UTM X):	Northing (UTI	Northing (UTM Y):			ccuracy: Meters	
	037753	37	4167967					
Photos:								
Photo ID#	F	Photo Purpose	Photo ID#:	Photo F	Purpose	Photo ID#:	Photo Purpose	
83	downstream		84	Upstream				
Photo ID#	Photo Purpose		Photo ID#	Photo F	Purpose	Photo ID#	Photo Purpose	
Photo ID#	F	Photo Purpose	Photo ID#	Photo F	Purpose	Photo ID#	Photo Purpose	
Uses Observ	ed:							
☐ Swimming	)	☐ Skin diving	□ SCUBA d	iving	☐ Tubin	ıg	☐ Water Skiing	
☐ Wind surfi	ng	☐ Kayaking	□ Boating		□ Wadi	ng	□ Rafting	
☐ Hunting		☐ Trapping	☐ Fishing		✓ None	of the above	☐ Other:	
Describe:			•		•			

WBID#	1326
Site #	2

#### **Data Sheet B- Site Characterization (Continued)**

Surrounding Condition	ons:				
☐ City/County parks	☐ playgrounds	☐ MDC cons	servation lands	□ Urban areas	☐ Rural Residential
☐ Campgrounds	☐ State parks	☐ National F	orests	☐ Nature trails	☐ Stairs/walkways
☐ Boating accesses	☐ Fence	✓ No tresspan	ass sign	☐ Steep Slopes	☐ Other:
Comments:					
Evidence of Human U		155.44.4			
☐ Roads	☐ Foot path/prints	☐ Dock/platfo		☐ Camping Sites	☐ Rope swings
☐ RV/ATV Tracks	☐ Fire pit/ring	☐ NPDES Di	scharge	☐ Fishing Tackle	☐ Livestock watering
	none				
Substrate:					
% Cobble	% Gravel	% Sand	50 % Silt	50% Mud/Clay	% Bedrock
Aquatic Vegatation:					
	None				
Water Characteristics	s:				
Odor:	☐ Sewage	□ Musky	☐ Chem		None ☐ Other:
Color:	□ Clear	☑ Green	☐ Gray		Milky ☐ Other:
Bottom Deposit:	□ Sludge	□ Solids			None ☐ Other:
Surface Deposit:	□ Oil	☐ Scum	☐ Foam	ı 🗹	None ☐ Other:

WBID#_	_1326_	
Site #	2	

Organization: SES, Inc.

## Field Data Sheets for Recreational Use Stream Surveys

#### **Data Sheet B - Site Characterization (continued)**

Channel Feature	Distance from	Width (m)	Length (m)	ng the survey that may sup  Median Depth (m)	Max Depth (m)
	access location (m)	( )	3, ( )		
	()				
	<u> </u>		1	l	
mmonto! (Disess		-   \			
offiliterits. (Please i	record any additional comments	s nere.)			
	None				
	NIONA				
	None				
	TNOTIC				
	TVOTE				
ease verify that y		sections. check	ed all applicable	e boxes, and that the	e form is
	ou have completed all s	sections, check	ted all applicable	e boxes, and that the	e form is
		sections, check	ted all applicable	e boxes, and that the	e form is
ease verify that y emplete.		sections, check	ed all applicable	e boxes, and that the	e form is

Position: Field Team Leader

																		Disso	lved Ox	ygen		
	Waterbo	ody ID:	1326		-	Site #:	2		·							Date:	9/28/07			Time:	12:30	
	Estimate	ed Chann	el Incisi	on:	3	(m) (hei	ght betw	een low	bank wie	dth and v	vater)					24.0.	<i>31</i> <b>2</b> 61 6 1		DO Me		12.00	
						•	_									Di	ssolved	Oxygen:	Not Wo	rking	(mg/L)	
		cation - I UTM X		UTM X) 037766				izontal A	-			PDOP / F		(meters)		D	ggolyad (	Ovvecon			(0/, cot)	
	11	UTM X	<u> </u>			. '	UTM Y:		416796	<u> </u>	•	+/-		(meters)		D	.8801VCU \	Oxygen.			( /o Sat)	
						-					•						Specifi	c Cond:			(µS/cm)	
					8			(meters)		_	-	Segment:	160		(meters)	337-	4 T	4			(00)	
	(10 dete	rmne Le	ngtn of i	keacn)					(2	20x avera	ge strear	n wiatn)				wa	ter Temp	berature:			(°C)	
	Fiel	d Staff:	Larissa	Brown, A	Aaron Ba	ı11																
										Trai	nsect C	ross-Sec	tion									
														_								
	Distance	1	Distance	2	Distance	3	Distance	)4 	Distance	)5 	Distance	6	0 Distance	7	0 Distance	8	0 Distance	9	1 Distance	U	Distance	<u> </u>
Station	(m)	Depth (m)	(m)	Depth (m)	(m)	Depth (m)	(m)	Depth (m)	(m)	Depth (m)	(m)	Depth (m)	(m)	Depth (m)	(m)	Depth (m)	(m)	Depth (m)	(m)	Depth (m)	(m)	Depth (m)
Left Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0.3	0.1	0.2	0.2	0.7	0.1	0.6	0.45	0.6	0.4	0.6	0.6	0.8	0.2	0.9	0.5	0.7	0.8	0.8	0.8	0.8	0.8
2	0.6	0.2	0.4	0.25	1.4	0.2	1.2	0.8	1.2	0.7	1.2	1	1.6	0.45	1.8	0.6	1.4	0.9	1.6	1	1.6	0.85
3	0.9	0.25	0.6	0.2	2.1	0.4	1.8	0.95	1.8	0.9	1.8	1	2.4	0.2	2.7	0.75	2.1	1	2.4	1	2.4	1
4	1.2	0.25	0.8	0.2	2.8	1	2.4	1	2.4	0.9	2.4	1	3.2	0.2	3.6	0.9	2.8	1	3.2	1	3.2	1
5	1.5	0.25	1	0.1	3.5	1	3	0.9	3	0.95	3	1	4	0.1	4.5	0.9	3.5	1	4	1	4	1
6	1.8	0.2	1.2	0.1	4.2	1	3.6	0.8	3.6	0.95	3.6	1	4.8	0.3	5.4	0.95	4.2	1	4.8	1	4.8	1
7	2.1	0.3	1.4	0.1	4.9	1	4.2	0.8	4.2	0.9	4.2	0.95	5.6	0.4	6.3	0.85	4.9	1	5.6	1	5.6	1
8	2.4	0.25	1.6	0.1	5.6	0.95	4.8	0.7	4.8	0.8	4.8	0.8	6.4	0.5	7.2	0.7	5.6	0.9	6.4	1	6.4	0.9
9	2.7	0.2	1.8	0.1	6.3	0.75	5.4	0.6	5.4	0.7	5.4	0.75	7.2	0.35	8.1	0.5	6.3	0.75	7.2	1	7.2	0.6
Right Bank	3	0	2	0	7	0	6	0	6	0	6	0	8	0	9	0	7	0	8	0	8	0
Feature Type						1							l						l			
riffle, run, or pool	pc	ool	ро	ool	po	ool	po	ool	ро	ool	pc	ool	po	ool	po	ol	po	ol	po	ol	po	ol

Notes: Transects will be measured beginning on left descending bank (0 depth) and finishing on right descending bank (0 depth). This width is the wetted width

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

1 MAXIMUM

Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)

0.8 MEDIAN

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as  $\geq 1$ )

All measurements to be taken to the nearest 0.01 meter.

Signed. Admi Dan Date. 9/20/07	Signed: Aaron Ball Date: 9/28	'07
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Date & Time:	9/28/07	1:45		Site Location Description (e.g. road crossing):						
Personnel:	Larissa	Brown, Aaron Ball		Upstream of crossing NW 100						
Current Weath	er Cond	ditions: clear		Facility Nar	ne:	Lamar Sanita	ry and Demolition			
Weather condi	tions fo	r the past 10 days:	4 in rain	Permit Nun	nber:	MO0112046				
Drought condit	tions?: N	No drought ☑ ; Pha	se I □ ; Phase	II □ ; Phas	e III □ ; Pl	hase IV □ ; Ur	nknown 🗆			
Site Location	•									
		(Universal Transver	se Mercator Pi	rojection, In	Meters					
Site 01	Easting	(UTM X):	Northing (UTN	И Y):		Horizontal Ad	curacy: Meters			
	037701	1	4169283							
Site 11	Easting	(UTM X):	Northing (UTN	И Y):		Horizontal Ac	curacy: Meters			
	037686	•	4169425	/-						
0070000 4100420										
Distant										
Photos:										
Photo ID#	F	Photo Purpose	Photo ID#:	Photo F	Purpose	Photo ID#:	Photo Purpose			
86	Upstrea	am	87	Downstrea	<u>m</u>					
DI ( ID#			DI 1 1D#	DI ( 5		DI 1 ID#	DI 1 D			
Photo ID#	Р	hoto Purpose	Photo ID#	Photo F	urpose	Photo ID#	Photo Purpose			
Dhata ID#		de et e Divine e e	Dhata ID#	Dhata F	)	Dhata ID#	Dhata Duwasa			
Photo ID#	<u> </u>	hoto Purpose	Photo ID#	Photo F	rurpose	Photo ID#	Photo Purpose			
Uses Observe	ed:						T			
☐ Swimming		☐ Skin diving	☐ SCUBA di	iving	☐ Tubin	g	☐ Water Skiing			
☐ Wind surfir	ng	☐ Kayaking	☐ Boating		□ Wadir	ng	☐ Rafting			
☐ Hunting		☐ Trapping	☐ Fishing		✓ None	of the above	☐ Other:			
Describe:										

WBID#	1326
Site #	3

#### **Data Sheet B- Site Characterization (Continued)**

Surrounding Cond		I —		· · · ·	T==
☐ City/County park	. , ,		vation lands	□ Urban areas	☐ Rural Residential
☐ Campgrounds	☐ State parks	□ National For		□ Nature trails	☐ Stairs/walkways
☐ Boating accesses	s □ Fence	☐ No tresspas	s sign	☐ Steep Slopes	☐ Other:
Comments:					
Evidence of Human		Dool/slotte		Comming Cites	I Dana awin na
☐ Roads ☐ RV/ATV Tracks	☐ Foot path/prints	☐ Dock/platforr		☐ Camping Sites	☐ Rope swings
comments/other:	☐ Fire pit/ring	☐ NPDES Disc	narge	☐ Fishing Tackle	☐ Livestock watering
	None				
Substrate:	20.00		0/ 0:11		400/ 5
% Cobble	60 % Gravel	% Sand	% Silt	30 % Mud/Clay	10% Bedrock
Aquatic Vegatation	:				
	Rooted vegetation,	10%			
Water Characterist					
Odor:	☐ Sewage	□ Musky	☐ Chem		None ☐ Other:
Color:	☑ Clear	□ Green	☐ Gray		Milky ☐ Other:
Bottom Deposit:	□ Sludge	□ Solids			None ☐ Other:
Surface Deposit:	□ Oil	□ Scum	☐ Foam	<u> </u>	None ☐ Other:

WBID # 1326	
Site # 3	

#### **Data Sheet B - Site Characterization (continued)**

	Morphology: (Record isola				
Channel Feature	Distance from	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)
	access location (m)				
omments: (Please r	ecord any additional comment	s here.)			
	None				
lease verify that y	ou have completed all	sections, check	ed all applicabl	e boxes, and that the	form is
omplete.	•	•	• •	·	
- I					
wover's Signature:	Aaron Pall		Data of Survey	0/20/2007	
veyor's Signature:	Aaron Bali		Date of Survey:	912012001	
0	OFO 1		D!#:-	Field Tears Land:	
Organization:	SES, Inc.		Position:	Field Team Leader	

																	Disso	Ived Ox	ygen		
Waterbo	ody ID:	1326			Site #:	3									Date:	9/28/07			Time:	1:45	
Estimate	ed Chann	el Incisi	on:	3	(m) (hei	ght betw	een low	bank wid	ith and w	ater)						2,20,01				1.10	
Louinau	va Challi	1110131	011.		(iii) (iici	5III OCIW	CO11 10 W	Julia WIC	our und W	,					Di	issolved				(mg/L)	
GPS Lo	cation - I	Easting (	UTM X)	, Northin	ıg (UTM	Y), Hori	izontal A	ccuracy	Estimate	(EPE / I	PDOP / F	OM)					, , ,		<u> </u>	. 6-1	
01	UTM X	:	0377011	1	. 1	UTM Y:		4169283	3	•			(meters)		Di	issolved	Oxygen:			(% sat)	
11 UTM X: 0376863 UTM Y: 4169425 +/- (meters)																					
	G.	**** 1.1		0					a c	a .			1.60			Specifi	c Cond:			(µS/cm)	
				8			(meters)		-	•			160	(meters)	Wo	tor Tomr	oroturo:			(°C)	
(10 dete	illille Le	ngui oi i	(cacii)					(2	ox aveia	ge sirear	ii widiii)				wa	iter reing	erature.			( C)	
Fiel	d Staff:	Larissa	Brown, A	Aaron Ba	.11																
									Trai	isect Ci	ross-Sec	tion									
0	1	0	2	0	3	0	4	0	5	0	6	0	7	0	8	0	9	1	0	1	1
Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.5	0.2	0.1	0.3	0.8	0.1	0.0	0.1	0.7	0.3	0.8	0.15	0.5	0.5	1	0.45	0.6	0.1	0.5	0.1	0.1	0
0.5												0.5		2							
1	0.2											1	0.5	2				-			0
1.5	0.15	0.3	0.35	2.4	0.2	2.7	0.1	2.1	0.3	2.4	0.3	1.5	0.6	3	0.7	1.8	0.3	1.5	0.2	0.3	0
2	0.15	0.4	0.4	3.2	0.2	3.6	0.25	2.8	0.2	3.2	0.3	2	0.65	4	0.7	2.4	0.4	2	0.2	0.4	0
2.5	0.2	0.5	0.35	4	0.2	4.5	0.7	3.5	0.55	4	0.2	2.5	0.6	5	0.8	3	0.5	2.5	0.2	0.5	0
3	0.2	0.6	0.4	4.8	0.2	5.4	0.8	4.2	0.5	4.8	0.25	3	0.5	6	0.85	3.6	0.6	3	0.2	0.6	0.05
																					0.05
														,							
4	0.3	0.8	0.3	6.4	0.3	7.2	0.5	5.6	0.5	6.4	0.2	4	0.4	8	0.5	4.8	0.3	4	0.25	0.8	0.05
4.5	0.25	0.9	0.3	7.2	0.5	8.1	0.2	6.3	0.35	7.2	0.25	4.5	0.1	9	0.25	5.4	0.2	4.5	0.1	0.9	0
5	0	1	0	8	0	9	0	7	0	8	0	5	0	10	0	6	0	5	0	1	0
													ool	po	ool	pc	ol	po	ol	rif	fle
	Estimate  GPS Lo  01  11  Average (To dete  Fiel  0  Distance (m) 0  0.5  1  1.5  2  2.5  3  3.5  4  4.5  5	Estimated Channel GPS Location - I	Estimated Channel Incisi	Color	Company	Company	Sestimated Channel Incision: 3 (m) (height betwood of the proof of t	Sestimated Channel Incision: 3 (m) (height between low	Sestimated Channel Incision: 3 (m) (height between low bank wide GPS Location - Easting (UTM X), Northing (UTM Y), Horizontal Accuracy   01	Sestimated Channel Incision: 3 (m) (height between low bank width and widt	Sestimated Channel Incision: 3 (m) (height between low bank width and water)	Estimated Channel Incision:3 (m) (height between low bank width and water)  GPS Location - Easting (UTM X), Northing (UTM Y), Horizontal Accuracy Estimate (EPE / PDOP / FOT UTM X: 0377011	Estimated Channel Incision:	Estimated Channel Incision: 3 (m) (height between low bank width and water)  GPS Location - Easting (UTM X), Northing (UTM Y), Horizontal Accuracy Estimate (EPE / PDOP / FOM)  11 UTM X: 0377011 UTM Y: 4169283 + +/- (meters)  Average Stream Width: 8 (meters)  Average Stream Width: 8 (meters)  Field Staff: Larissa Brown, Aaron Ball  Transect Cross-Section  160  (20x average stream width)  Transect Cross-Section  170  180  180  180  180  180  180  180	Sestimated Channel Incision: 3 (m) (height between low bank width and water)   GPS Location - Easting (UTM X), Northing (UTM Y), Horizontal Accuracy Estimate (EPE / PDOP / FOM)   11 UTM X: 0377011   UTM Y: 4169283   +/- (meters)   160 (meters)	Distance	Date	State   Sta	State   Stat	Part   Part	Signate   Sig

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

0.85 MAXIMUM

Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)

0.25 MEDIAN

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as  $\geq 1$ ) All measurements to be taken to the nearest 0.01 meter.

Signed: Aaron Ball Date: 9/28/0/	Signed: Aaron Ball	Date:	9/28/07	
----------------------------------	--------------------	-------	---------	--

WBID#	1326
Site #	4

-										
Date & Time:	2:30pm		Site Location	Site Location Description (e.g. road crossing):						
Personnel:	Larissa	Brown, Aaron Ball		Sate HWY	Sate HWY N crossing					
Current Weat	her Con	ditions: Clear		Facility Na	Facility Name: Lamar Sanitary and Demolition					
Weather cond	ditions fo	r the past 10 days:	4 in rain	Permit Nun	nber:	MO0112046				
Drought cond	itions?: I	No drought ☑ ; Pha	se I □ ; Phase	· II □ ; Phas	e III □ ; P	hase IV □ ; Ur	nknown 🗆			
Site Location	n:									
		(Universal Transvei	rse Mercator P	rojection, In	Meters	_				
Site 01	Easting	ı (UTM X):	Northing (UTI	М <u>Ү):</u>		Horizontal Ac	ccuracy:	Meters		
	037708	33	4173214							
Site 11	Easting	ı (UTM X):	Northing (UTI	M Y):		Horizontal Ac	ccuracy:	Meters		
	037702	•	4173426	,.			ourue,			
	001.2		1110120					J		
Photos:										
		OF the Disconnection	Dhata ID#	Dhoto [	2::::::::::::::::::::::::::::::::::::::	Dh - to 1D#1	Dhata Dumana			
Photo ID#		Photo Purpose	Photo ID#:	Photo Purpose		Photo ID#:	Photo Purpose			
88	Downs	tream	89	Upstream						
Photo ID#	F	Photo Purpose	Photo ID#	Photo F	Purpose	Photo ID#	Photo Purpose			
T HOLO ID!	<u> </u>	noto i dipose	T HOLO ID!	1 11000 1	шрозс	T HOLO ID!	1 11010 1 41,000			
Photo ID#	F	Photo Purpose	Photo ID#	Photo F	Purpose	Photo ID#	Photo Purpose	د		
		11000 . 0			u.pu.					
				<u> </u>		<u> </u>				
Ob										
Uses Observ		Chin diving		to does as	- Tubin		U Water China			
☐ Swimming		☐ Skin diving	☐ SCUBA d	IVing	☐ Tubin		☐ Water Skiing			
☐ Wind surfing ☐ Kayaking ☐ Boating					☐ Wadir	<u> </u>	☐ Rafting			
☐ Hunting		☐ Trapping	☐ Fishing		✓ None	of the above	☐ Other:			
Describe:										

WBID#	1326
Site #	4

#### **Data Sheet B- Site Characterization (Continued)**

Surrounding Cond	litiona				
Surrounding Cond ☐ City/County park		MDC con	servation lands	☐ Urban areas	☐ Rural Residential
☐ City/County park	☐ State parks	□ National		☐ Nature trails	☐ Stairs/walkways
☐ Boating accesse		☐ No tressp		☐ Steep Slopes	☐ Other:
Comments:	3   L Telloe	I NO tressp	ass sign	□ Steep Slopes	Other.
Comments:					
Evidence of Huma	n Use:				
☐ Roads	☐ Foot path/prints	□ Dock/platt	form	☐ Camping Sites	☐ Rope swings
☐ RV/ATV Tracks	☐ Fire pit/ring		ischarge	☐ Fishing Tackle	☐ Livestock watering
comments/other:					
	None				
Substrate:					
% Cobble	10 % Gravel	% Sand	50 % Silt	40 % Mud/Clay	% Bedrock
Aquatic Vegatation	n:				
	None				
Water Characterist	tics:				
Odor:	☐ Sewage	☐ Musky	☐ Chem	nical 🗹	None ☐ Other:
Color:	☐ Clear	☑ Green	☐ Gray		Milky ☐ Other:
Bottom Deposit:	□ Sludge	□ Solids			None ☐ Other:
Surface Deposit:	□ Oil	☐ Scum	☐ Foam		None ☐ Other:

WBID#	1326
Site # 4	

## Data Sheet B - Site Characterization (continued)

Channel Feature	Distance from	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)
	access location (m)				
omments: (Please r	ecord any additional comments	s here.)			
one					
16 41 4					
	ou have completed all	sections, check	red all applicable	e boxes, and that the	e form is
mplete.					
veyor's Signature:	Aaron Ball		Date of Survey:	9/28/2007	
Organization:	SES Inc		Position:	Field Team Leader	

																		Disso	lved Ox	xygen		
	Waterbo	ody ID:	1326		<u>-</u>	Site #:	4		i							Date:	9/28/07			Time:	2:30	
	Estimate	ed Chann	nel Incisi	on:	5	(m) (hei	ght betw	een low	bank wid	dth and w	ater)								DO Me			
						•	_					/_				D:	issolved	Oxygen:	Not Wo	rking	(mg/L)	
		cation - I UTM X	•	OTM X) 0377083		-	Y), Hori UTM Y:		ccuracy 417321	Estimate 4	•	PDOP / F +/-		(meters)		D	issolved	Oxygen:			(% sat)	
	11	UTM X	:	0377024	1	. 1	UTM Y:		4173420	6	•	+/-		(meters)							(C/)	
	Average	Stream	Width:		8			(meters)	L	ength of	Survey S	Segment:	160		(meters)		Specifi	ic Cond:			(µS/cm)	
	(To dete	ermne Le	ngth of I	Reach)					(2	20x avera	ge strear	n width)				Wa	ter Temp	perature:			(°C)	
	Fiel	d Staff:	Larissa	Brown, A	Aaron Ba	ıll																
										Trai	nsect C	ross-Sec	ction									
	0	1	0	2	0	3	0	4	0	)5	0	6	0	7	0	8	0	9	1	0	1	1
Station	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)
Left Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0.7	0.25	0.5	0.1	0.6	0.15	0.8	0.15	0.7	0.4	0.9	0.5	0.4	0.25	0.9	0.7	0.3	0.15	0.4	0.1	0.2	0.2
2	1.4	0.6	1	0.1	1.2	0.35	1.6	0.3	1.4	0.6	1.8	1	0.8	0.45	1.8	0.6	0.6	0.1	0.8	0.3	0.4	0.2
3	2.1	0.75	1.5	0.15	1.8	0.4	2.4	0.5	2.1	0.75	2.7	1	1.2	0.35	2.7	0.4	0.9	0.2	1.2	0.4	0.6	0.25
4	2.8	0.75	2	0.1	2.4	0.4	3.2	0.7	2.8	0.85	3.6	1	1.6	0.35	3.6	0.35	1.2	0.25	1.6	0.4	0.8	0.25
5	3.5	0.75	2.5	0.1	3	0.5	4	0.75	3.5	1	4.5	1	2	0.4	4.5	0.35	1.5	0.2	2	0.4	1	0.2
6	4.2	0.75	3	0.2	3.6	0.5	4.8	0.8	4.2	1	5.4	1	2.4	0.35	5.4	0.4	1.8	0.15	2.4	0.3	1.2	0.2
7	4.9	0.75	3.5	0.2	4.2	0.5	5.6	0.8	4.9	1	6.3	1	2.8	0.3	6.3	0.35	2.1	0.1	2.8	0.3	1.4	0.2
8	5.6	0.6	4	0.2	4.8	0.3	6.4	0.7	5.6	1	7.2	0.9	3.2	0.25	7.2	0.35	2.4	0.1	3.2	0.25	1.6	0.15
9	6.3	0.3	4.5	0.2	5.4	0.1	7.2	0.45	6.3	0.95	8.1	0.85	3.6	0.15	8.1	0.15	2.7	0.1	3.6	0.1	1.8	0.1
aight Bank	7	0	5	0	6	0	8	0	7	0	9	0	4	0	9	0	3	0	4	0	2	0
eature Type																						
iffle, run, or pool	po	ool	po	ool	po anding bank	ool	pc	ool	po	ool		ool	po	ool	po	ool	pc	ool	pc	ool	po	ol

otes: Transects will be measured beginning on left descending bank (0 depth) and finishing on right descending bank (0 depth). This width is the wetted width

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

0.35 MEDIAN

Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

1 MAXIMUM

Signed:	Aaron Ball	Date:	9/28/07
		•	

Date & Time:	10/8/07	7 12:20		Site Location	on Descrip	tion (e.g. road	crossing):		
Personnel:	Drew D	odson, Aaron Ball		Jack Murph	Jack Murphy's land				
Current Weath	ner Cond	ditions: overcast		Facility Nar	me:	Lamar Sanita	ry and Demolition		
Weather cond	itions fo	r the past 10 days:	4 in rain	Permit Num	nber:	MO0112046			
Drought condi	tions?: N	No drought ☑ ; Pha	se I □ ; Phase	· II □ ; Phas	e III □ ; PI	hase IV □ ; Ur	nknown 🗆		
Site Location	n <u>.</u>								
		(Universal Transver	rse Mercator Pi	rojection, In	Meters				
Site 01	Easting	g (UTM X):	Northing (UTN	M Y):		Horizontal Ac	ccuracy:		
	037825	53	4166757				18 feet		
Site 11	Easting	ı (UTM X):	Northing (UTN	M Y):		Horizontal Ac	ccuracy:		
	037806		4166652				18 feet		
	-					<u> </u>			
Photos:									
Photo ID#	F	Photo Purpose	Photo ID#:	Photo F	Purpose	Photo ID#:	Photo Purpose		
5	upstrea	•	6	downstream			'		
	apolica			dominou cu.					
Photo ID#	Р	Photo Purpose	Photo ID#	Photo F	Purpose	Photo ID#	Photo Purpose		
					-				
Photo ID#	Р	Photo Purpose	Photo ID#	Photo F	Purpose	Photo ID#	Photo Purpose		
			<u>.t</u>						
Uses Observe	od.								
□ Swimming		☐ Skin diving	□ SCUBA di	ivina	☐ Tubin	n	☐ Water Skiing		
☐ Wind surfing ☐ Kayaking ☐ Boating				IVIIII	□ Wadir		☐ Rafting		
☐ Hunting	☐ Trapping	☐ Fishing			of the above	☐ Other:			
Describe:		⊔ парріпу	☐ FISHING		M MOULE	or the above	□ Other.		

WBID#	1326
Site #	4

□ Oil

Surface Deposit:

#### Field Data Sheets for Recreational Use Stream Surveys

#### **Data Sheet B- Site Characterization (Continued)**

	Data Officer D Offi	o onaraotorization (oontin	acaj	
Surrounding Condi	tions:			
☐ City/County parks		☐ MDC conservation land	s □ Urban areas	☑ Rural Residential
☐ Campgrounds	☐ State parks	☐ National Forests	☐ Nature trails	☐ Stairs/walkways
☐ Boating accesses	•	☐ No tresspass sign	☐ Steep Slopes	☐ Other:
Comments:	•		•	
F:	. Haar			
Evidence of Human  ☐ Roads			Comming Cites	□ Dana audana
☐ RV/ATV Tracks	☐ Foot path/prints	☐ Dock/platform	☐ Camping Sites	
	☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle	☐ Livestock watering
comments/other:	None			
	None			
Substrate:				
	10 % Gravel	% Sand 10 % Silt	80 % Mud/Clay	% Bedrock
			,	
Aquatic Vegatation	:			
	2% algae on the bot	ttom		
_				
Water Characteristi				
Odor:	☐ Sewage	☐ Musky ☐ Che		None □ Other:
Color:	☑ Clear	☐ Green ☐ Gra		Milky
Bottom Deposit:	□ Sludge	☐ Solids ☐ Fine	e sediments 🗆 🗆	I None ☑ Other: Al

☑ Scum

□ Foam

☐ None

☐ Other:

WBID#	1326
Site # 5	

## **Data Sheet B - Site Characterization (continued)**

Channel Feature	Distance from	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)
	access location (m)				
mments: (Please re	ecord any additional comments	s here.)			
ne					
	ou have completed all	sections, check	red all applicabl	e boxes, and that the	form is
mplete.					
veyor's Signature:	Aaron Ball		_Date of Survey:	10/8/2007	
Organization:	SES Inc		Position:	Field Team Leader	

																		Disso	lved Ox	xygen		
	Waterbo	ody ID:	1326		•	Site #:	5									Date:	10/8/07			Time:	12:20	
	Estimate	ed Chann	el Incisi	on:	4	(m) (hei	ght betw	een low	bank wid	ith and w	ater)								DO Me			
						•										Di	issolved	Oxygen:	Not Wo	rking	(mg/L)	
		cation - I UTM X:		UTM X) 0378253				izontal A 4166751	-	Estimate	(EPE / I			(matara)		D:	iggalwad (	Ovrvaani			(9/ got)	
				0378066				4166652			ı			(meters) (meters)		Di	issolved (	Oxygen.			(% sat)	
		•				=					•			,			Specifi	c Cond:			(µS/cm)	
					7			(meters)		ength of	-	-			(meters)	***					(0.6)	
	(To dete	rmne Le	ngth of I	Reach)					(2	20x avera	ge strear	n width)				Wa	ter Temp	erature:			(°C)	
	Fiel	d Staff:	Drew D	odson, A	aron Ba	11																
										Т	A C	C	- 4									
										1 rai	isect C	ross-Sec	etion									
	0	1		2		)3		4		)5		6		7	0	8	_	9		0	1	1
Station	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)
Left Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0.6	0.15	0.8	0.25	0.7	0.3	0.8	0.15	0.8	0.2	0.9	0.55	0.7	0.4	0.6	0.1	0.8	0.2	0.8	0.55	0.6	0.65
2	1.2	0.2	1.6	0.25	1.4	0.45	1.6	0.15	1.6	0.2	1.8	0.95	1.4	0.7	1.2	0.15	1.6	0.25	1.6	1	1.2	0.95
3	1.8	0.45	2.4	0.5	2.1	0.7	2.4	0.25	2.4	0.3	2.7	0.7	2.1	0.75	1.8	0.15	2.4	0.3	2.4	1	1.8	0.8
4	2.4	0.7	3.2		2.8	1	3.2		3.2		3.6				2.4	0.15	3.2	0.3	3.2	1	2.4	0.8
5	3	1	4				4	0.5	4	0.5	4.5	0.95			3	0.15	4	0.5	4	0.8	3	0.8
6	3.6	1	4.8		4.2		4.8		4.8		5.4				3.6		4.8				3.6	0.8
7	4.2	1	5.6				5.6		5.6			0.65			4.2		5.6				4.2	0.8
, e	4.8	1	6.4		5.6		6.4		6.4			0.03			4.8	0.13	6.4	0.5		0.33	4.8	0.75
0		0.5							7.2													
9	5.4	0.5	7.2								8.1	0.2			5.4		7.2	0.4		0.4	5.4	
ight Bank	6	0	8	0	7	0	8	0	8	0	9	0	7	0	6	0	8	0	8	0	6	0
eature Type	pc	ol	pc	no1	n(	ool	no	ool	no	ool	n/	ool	no	ool	ро	ol	ро	വ	рс	ool	ро	വ
me, run, or pool	pc	· · · · ·	pc	,O1	l PC		pc pc	,U1	pt pt	Odonth) Thi		,01	, pc	7.01	ρC	· U1	ρυ	· • 1	ρC	· U1	ρυ	· () 1

tes: Transects will be measured beginning on left descending bank (0 depth) and finishing on right descending bank (0 depth). This width is the wetted wid

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

1 MAXIMUM

Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)

0.5 MEDIAN

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as  $\geq 1$ ) All measurements to be taken to the nearest 0.01 meter.

Signed: Aaron Ball Date: 10/8/07
----------------------------------

Current Weather Conditions: overcast Facility Name: Lamar Sanitary and Demolition  Weather conditions for the past 10 days: 4 in rain Permit Number: MO0112046  Drought conditions?: No drought ☑ ; Phase I □ ; Phase II □ ; Phase III □ ; Phase IV □ ; Unknown □  Site Location:  Location Coordinates (Universal Transverse Mercator Projection, In Meters  Site 01 Easting (UTM X): Northing (UTM Y): Horizontal Accuracy:  0379424 4163171 24 feet												
Current Weather Conditions: overcast Facility Name: Lamar Sanitary and Demolition Weather conditions for the past 10 days: 4 in rain Permit Number: MO0112046 Drought conditions?: No drought ☑; Phase I □; Phase II □; Phase III □; Phase IV □; Unknown □  Site Location: Location Coordinates (Universal Transverse Mercator Projection, In Meters  Site 01 Easting (UTM X): Northing (UTM Y): Horizontal Accuracy: 0379424 4163171 24 feet  Site 11 Easting (UTM X): Northing (UTM Y): Horizontal Accuracy: 0379579 4162983 28 feet  Photos:  Photo ID# Photo Purpose Photo ID#: Photo Purpose Photo ID#: Photo Purpose 7 downstream 8 upstream  Photo ID# Photo Purpose	Date & Time:	10/8/07	13:56		Site Location Description (e.g. road crossing):							
Weather conditions for the past 10 days: 4 in rain	Personnel:	Drew D	odson, Aaron Ball		HWY V							
Drought conditions?: No drought ☑ ; Phase I □ ; Phase II □ ; Phase III □ ; Phase IV □ ; Unknown □  Site Location: Location Coordinates (Universal Transverse Mercator Projection, In Meters  Site 01	Current Weath	ner Conc	ditions: overcast		Facility Nar	me:	Lamar Sanita	ry and Demolition				
Site Location: Location Coordinates (Universal Transverse Mercator Projection, In Meters  Site 01	Weather cond	itions fo	r the past 10 days:	4 in rain	Permit Nun	nber:	MO0112046					
Location Coordinates (Universal Transverse Mercator Projection, In Meters  Site 01	Drought condi	itions?: N	 No drought ☑ ; Pha	se I □ ; Phase	II ☐ ; Phase	e III □ ; PI	hase IV □ ; Ur	ıknown 🗆				
Location Coordinates (Universal Transverse Mercator Projection, In Meters  Site 01												
Location Coordinates (Universal Transverse Mercator Projection, In Meters  Site 01	Site Location	1:										
O379424 4163171 24 feet  Site 11 Easting (UTM X): Northing (UTM Y): Horizontal Accuracy: O379579 4162983 28 feet  Photos: Photo ID# Photo Purpose Photo ID#: Photo Purpose Photo ID#: Photo Purpose 7 downstream 8 upstream  Photo ID# Photo Purpose Photo ID# Photo Purpose Photo ID# Photo Purpose Photo ID# Photo Purpose  Photo ID# Photo Purpose Photo ID# Photo Purpose Photo ID# Photo Purpose Photo ID# Photo Purpose  Photo ID# Photo Purpose Photo ID# Photo Purpose Photo ID# Photo Purpose Photo ID# Photo Purpose			(Universal Transver	rse Mercator Pi	rojection, In	Meters						
Site 11 Easting (UTM X): Northing (UTM Y): Horizontal Accuracy:  0379579 4162983 28 feet  Photos:  Photo ID# Photo Purpose Photo ID#: Photo Purpose Photo ID#: Photo Purpose 7 downstream 8 upstream  Photo ID# Photo Purpose Photo ID# Photo Purpose Photo ID# Photo Purpose  Photo ID# Photo Purpose Photo ID# Photo Purpose Photo ID# Photo Purpose  Photo ID# Photo Purpose Photo ID# Photo Purpose Photo ID# Photo Purpose  Photo ID# Photo Purpose Photo ID# Photo Purpose Photo ID# Photo Purpose	Site 01	Easting	(UTM X):	Northing (UTI	И Y):		Horizontal Ac	curacy:				
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7 downstream 8 upstream  Photo ID# Photo Purpose Photo ID# Photo Purpose Photo ID# Photo Purpose  Photo ID# Photo Purpose Photo ID# Photo Purpose Photo ID# Photo Purpose  Photo ID# Photo Purpose Photo ID# Photo Purpose  Uses Observed:			Photo Durnoco	Dhata ID#:	Photo E	O . rnoco	Dhota ID#:	Photo Purnoco				
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Uses Observed:	Photo ID#	Р	hoto Purpose	Photo ID#	Photo F	Purpose	Photo ID#	Photo Purpose				
		<u>.                                    </u>		<u>.</u> L								
	Observe	1.										
☐ Swimming ☐ Skin diving ☐ SCUBA diving ☐ Tubing ☐ Water Sking			Chin diving	To coupa d	· · · · · ·	□ Tubin		U Water China				
			Ţ.		iving			, and the second				
□ Wind surfing □ Kayaking □ Boating □ Wading □ Rafting		ng					_					
	☐ Hunting		☐ Trapping	☐ Fishing		☑ None	of the above	e 🗆 Other:				
Jescribe:	Describe:											

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#### **Data Sheet B- Site Characterization (Continued)**

Surrounding Conditi	ons:				
☐ City/County parks	☐ playgrounds	☐ MDC cons	ervation lands	□ Urban areas	☑ Rural Residential
☐ Campgrounds	☐ State parks	☐ National F	orests	☐ Nature trails	☐ Stairs/walkways
☐ Boating accesses	☑ Fence	☐ No tresspa	ss sign	☑ Steep Slopes	☐ Other:
Comments:					
Evidence of Human I				Comming Cites	I Dana suine
☐ Roads ☐ RV/ATV Tracks	☐ Foot path/prints ☐ Fire pit/ring	☐ Dock/platfo		☐ Camping Sites☐ Fishing Tackle	☐ Rope swings ☐ Livestock watering
comments/other:	□ Fire pit/fing	☐ NPDES Dis	charge	□ Fishing Tackle	□ Livestock watering
comments/outer.	None				
Substrate:					
% Cobble	% Gravel	% Sand	10 % Silt	70 % Mud/Clay	20 % Bedrock
Aquatic Vegatation:					
	none				
Water Characteristic					
Odor:	□ Sewage	□ Musky	☐ Chem		None ☐ Other:
Color:	☐ Clear	☑ Green ☐ Solids	☐ Gray		Milky ☐ Other:  None ☐ Other:
Bottom Deposit: Surface Deposit:	☐ Sludge ☐ Oil	☐ Scum	☐ Foam		None ☐ Other:  None ☐ Other:

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Site # 6	

## **Data Sheet B - Site Characterization (continued)**

Channel Feature	Morphology: (Record isola Distance from	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)
	access location (m)				
mments: (Please re	ecord any additional comments	s here.)			
ne					
					-
	au hava aammiatad all i		اطممانا مسانمه الماسم	a bawaa and that the	. fa !a
	ou have completed all	sections, check	ted all applicabl	e boxes, and that the	torm is
mplete.					
			D	40101000	
eyor's Signature:	Aaron Ball		_Date of Survey:	10/8/2007	
Organization:	SES Inc		Position:	Field Team Leader	

																		Disso	lved Ox	xygen		
	Waterbo	ody ID:	1326		ī	Site #:	6		i							Date:	10/8/07			Time:	13:56	
	Estimate	ed Chann	nel Incisi	on:	5	(m) (hei	ght betw	een low	bank wid	dth and w	vater)					•			DO Me	ter		
																Di	ssolved	Oxygen:	Not Wo	rking	(mg/L)	
	GPS Lo	cation - l	Easting (	UTM X)	, Northin	g (UTM	Y), Hor	izontal A	ccuracy	Estimate	(EPE / 1	PDOP / I	FOM)								•	
		UTM X		0379424			UTM Y:					+/-		(meters)		Di	ssolved	Oxygen:			(% sat)	
	11	UTM X	<u> </u>	0379579	)	,	UTM Y:	4162983	3		•	+/-	8.5	(meters)								
	<b>A</b>	C4	337: 441		(			( t)	т	41 6	C	7 4 -	120		(		Specifi	ic Cond:			(µS/cm)	
		rmne Le		Peach)	В			(meters)	0	ength of 20x avera	-	_			(meters)	Wa	ter Temp	aratura.			(°C)	
	(10 dete	TITILL LC	ngui oi i	(cacii)					(2	ox avera	ige stream	ii widdii)				vv a	ter remp	crature.			( )	
	Fiel	d Staff:	Drew D	odson, A	aron Bal	1																
														ı								
										Trai	nsect C	ross-Se	ction									
	0	1	0	2	0	3	0	4	0	)5	0	6	0	7	0	8	0	9	1	0	1	1
Station	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)
	0		0		0		0		0		0		0		0		0		0		0	
Left Bank	U	0	U	0	U	0	U	0	U	0	U	0	U	0	U	0	U	0	0	0	U	0
1	0.5	0.2	0.5	0.3	0.6	0.45	0.6	0.2	0.7	0.7	0.7	0.7	0.9	0.4	0.9	0.5	0.9	0.3	0.8	0.45	0.9	0.4
2	1	0.4	1	0.5	1.2	0.8	1.2	0.2	1.4	0.9	1.4	0.95	1.8	0.6	1.8	0.8	1.8	0.6	1.6	0.7	1.8	0.7
3	1.5	0.9	1.5	0.6	1.8	1	1.8	0.35	2.1	1	2.1	0.9	2.7	0.7	2.7	1	2.7	0.7	2.4	0.8	2.7	0.8
4	2	0.8	2	0.8	2.4	1	2.4	0.55	2.8	1	2.8	0.7	3.6	0.3	3.6	1	3.6	0.7	3.2	0.9	3.6	0.7
5	2.5	0.6	2.5	0.8	3	0.85	3	0.5	3.5	1	3.5	0.5	4.5	0.25	4.5	1	4.5	0.8	4	0.9	4.5	0.65
6	3	0.5	3	0.75	3.6	0.7	3.6	0.4	4.2	1	4.2	0.3	5.4	0.75	5.4	1	5.4	0.9	4.8	0.9	5.4	0.75
7	3.5		3.5		4.2	0.5		0.3	4.9	1	4.9	0.5			6.3	1	6.3	0.85			6.3	0.65
,	3.3																					
8	4	0.4	4	0.45	4.8	0.3	4.8	0.2	5.6	1	5.6	0.5	7.2	0.7	7.2	0.8	7.2	0.6	6.4	0.5	7.2	0.4
9	4.5	0.25	4.5	0.3	5.4	0.1	5.4	0.1	6.3	0.7	6.3	0.4	8.1	0.6	8.1	0.4	8.1	0.3	7.2	0.3	8.1	0.3
ight Bank	5	0	5	0	6	0	6	0	7	0	7	0	9	0	9	0	9	0	8	0	9	0
eature Type																						
iffle, run, or pool	рс	ool	po	ool	рс	ol	рс	ool	po	ool	po	ool	pc	ool	po	ol	po	ool	рс	ol	po	ol
Notes:	s: Transects will be measured beginning on left descending bank (0 depth) and finishing on right descending bank (0 depth). This width is the wetted width  GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.  1 MAXIMUM																					

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)

0.65 MEDIAN

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

igned:	Aaron Ball	Date:	10/8/07
		•	

## **WBID# 1326**



Site# 1 Photo ID# 81, Downstream



Site# 2 Photo ID# 83, Downstream



Site# 1 Photo ID# 82, Upstream



Site# 2 Photo ID# 84, Upstream

## **WBID# 1326**



Site# 3 Photo ID# 86, Upstream



Site# 4 Photo ID# 88, Downstream



Site# 3 Photo ID# 87, Downstream



Site# 4 Photo ID# 89, Upstream

## **WBID# 1326**



Site# 5 Photo ID# 5, Upstream



Site# 6 Photo ID# 7, Downstream



Site# 5 Photo ID# 6, Downstream



Site# 6 Photo ID# 8, Upstream